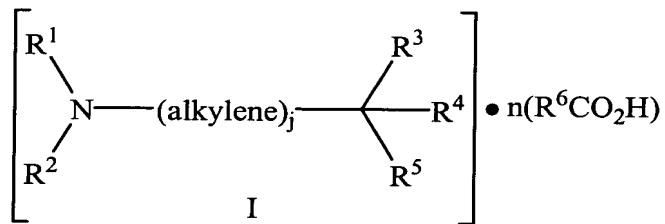


**What is Claimed:**

1. A compound of formula I:



wherein:

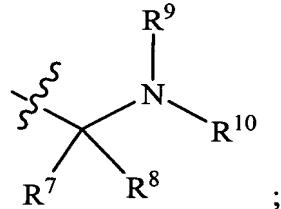
$R^1$  and  $R^2$  are each independently alkyl or -(alkylene)-epoxyethyl;

$R^3$  is alkyl, aralkyl, or aryl, wherein said alkyl, aralkyl or aryl is optionally substituted with 0-5 Z;

$R^4$  and  $R^5$  are each independently H, alkyl, or aryl, wherein said alkyl or aryl is optionally substituted with 0-5 Z;

$R^6$  is H, alkyl, aryl or aralkyl;

Z is:



$R^7$  and  $R^8$  are each independently H, alkyl, or aryl;

$R^9$  and  $R^{10}$  are each independently alkyl or -(alkylene)-epoxyethyl;

j is the integer 0 or 1;

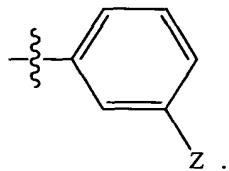
n is a number in the range from about 0.8Y to about Y; and

Y is the number of amine nitrogen atom equivalents in said compound;

provided that at least two of  $R^1$ ,  $R^2$ ,  $R^9$  and  $R^{10}$  are -(alkylene)-epoxyethyl.

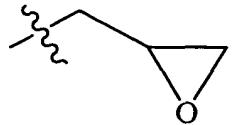
2. The compound of claim 1, wherein  $R^3$  is phenyl, optionally substituted with 0-5 Z.

3. The compound of claim 1, wherein R<sup>3</sup> is:

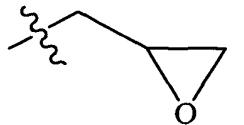


4. The compound of claim 1, wherein R<sup>7</sup> and R<sup>8</sup> are each H and wherein Z is -CH<sub>2</sub>NR<sup>9</sup>R<sup>10</sup>.

5. The compound of claim 4, wherein at least two of R<sup>1</sup>, R<sup>2</sup>, R<sup>9</sup>, and R<sup>10</sup> are:



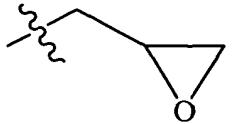
6. The compound of claim 4, wherein each of R<sup>1</sup>, R<sup>2</sup>, R<sup>9</sup>, and R<sup>10</sup> is:



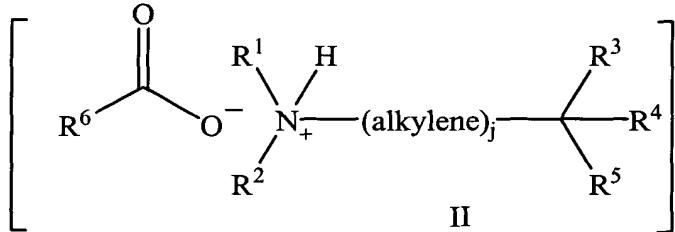
7. The compound of claim 1, wherein said compound is substantially water soluble.

8. The compound of claim 1, wherein R<sup>3</sup> is cyclohexyl.

9. The compound of claim 1, wherein -(alkylene)-epoxyethyl is:



10. A compound of formula II:



wherein:

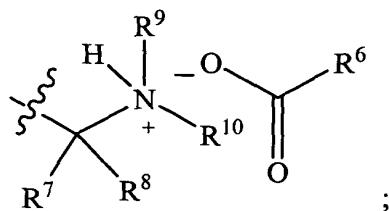
R<sup>1</sup> and R<sup>2</sup> are each independently alkyl or -(alkylene)-epoxyethyl;

R<sup>3</sup> is alkyl, aralkyl, or aryl, wherein said alkyl, aralkyl or aryl is optionally substituted with 0-5 Z;

$R^4$  and  $R^5$  are each independently H, alkyl, or aryl, wherein said alkyl or aryl is optionally substituted with 0-5 Z;

$R^6$  is H, alkyl, aryl or aralkyl;

Z is:



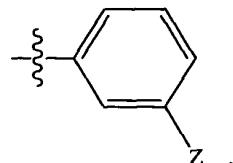
$R^7$  and  $R^8$  are each independently H, alkyl, or aryl;

$R^9$  and  $R^{10}$  are each independently alkyl or -(alkylene)-epoxyethyl;

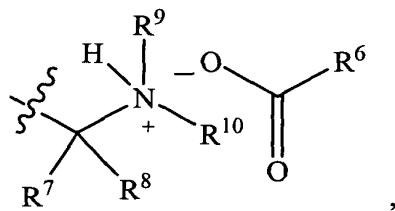
j is the integer 0 or 1;

provided that at least two of  $R^1$ ,  $R^2$ ,  $R^9$  and  $R^{10}$  are -(alkylene) epoxyethyl.

11. The compound of claim 10, wherein  $R^3$  is phenyl, optionally substituted with 0-5 Z.
12. The compound of claim 10, wherein  $R^3$  is:

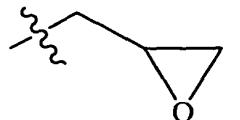


13. The compound of claim 10, wherein Z is:

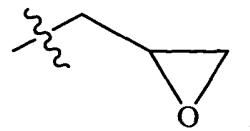


and wherein  $R^7$  and  $R^8$  are each H.

14. The compound of claim 13, wherein at least two of  $R^1$ ,  $R^2$ ,  $R^9$ , and  $R^{10}$  are:



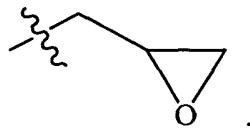
15. The compound of claim 13, wherein each of R<sup>1</sup>, R<sup>2</sup>, R<sup>9</sup>, and R<sup>10</sup> is:



16. The compound of claim 10, wherein said compound is substantially water soluble.

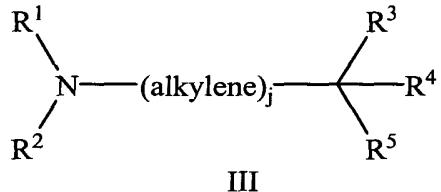
17. The compound of claim 10, wherein R<sup>3</sup> is cyclohexyl, wherein said cyclohexyl is optionally substituted with 0-3 Z.

18. The compound of claim 10, wherein -(alkylene)-epoxyethyl is:



19. The compound of claim 10, wherein said compound is substantially water soluble.

20. A polyepoxy resin composition comprising a compound of formula III:



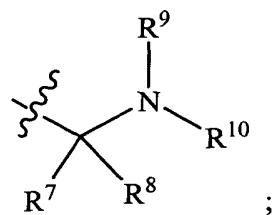
wherein:

R<sup>1</sup> and R<sup>2</sup> are each independently alkyl or -(alkylene)-epoxyethyl;

R<sup>3</sup> is alkyl, aralkyl, or aryl, wherein said alkyl, aralkyl or aryl is optionally substituted with 0-5 Z;

R<sup>4</sup> and R<sup>5</sup> are each independently H, alkyl, or aryl, wherein said alkyl or aryl is optionally substituted with 0-5 Z;

Z is:



R<sup>7</sup> and R<sup>8</sup> are each independently H, alkyl, or aryl;

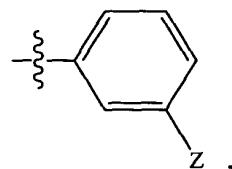
R<sup>9</sup> and R<sup>10</sup> are each independently alkyl or -(alkylene)-epoxyethyl;

j is the integer 0 or 1;

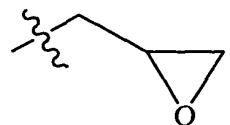
provided that at least two of R<sup>1</sup>, R<sup>2</sup>, R<sup>9</sup> and R<sup>10</sup> are -(alkylene) epoxyethyl; and

a carboxylic acid.

21. The composition of claim 20, wherein the ratio of carboxylic acid equivalents to amine equivalents of the compound of formula III is at least about 0.8.
22. The composition of claim 21, wherein said ratio is within the range of about 0.8 to about 5.
23. The composition of claim 21, wherein said ratio is within the range of about 0.8 to about 2.
24. The composition of claim 21, wherein said ratio is within the range of about 0.8 to about 1.5.
25. The composition of claim 20, wherein said aryl is:

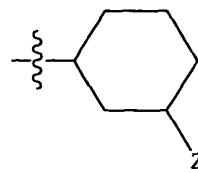


wherein R<sup>7</sup> and R<sup>8</sup> are each H, wherein Z is -CH<sub>2</sub>NR<sup>9</sup>R<sup>10</sup>, and wherein each of R<sup>1</sup>, R<sup>2</sup>, R<sup>9</sup>, and R<sup>10</sup> is:



26. The composition of claim 20, wherein said composition is substantially water soluble.
27. The composition of claim 20, further comprising water.
28. The composition of claim 25, wherein said composition is substantially water soluble.
29. The composition of claim 25, further comprising water.

30. The compound of claim 22, wherein R<sup>3</sup> is:



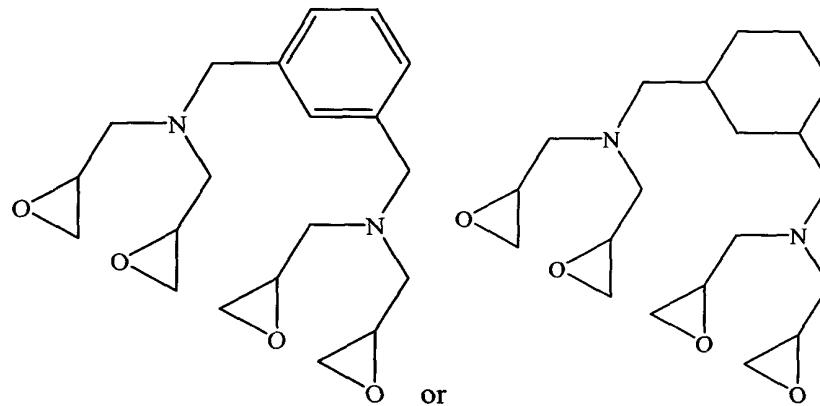
31. A coating produced from a mixture comprising:

the polyepoxy resin composition of claim 20; and

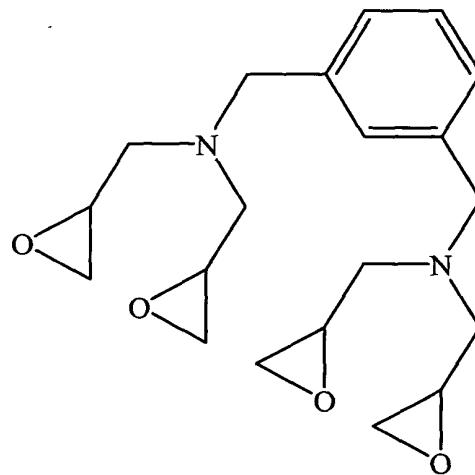
a curative.

32. The coating produced of claim 31, wherein said carboxylic acid is acetic acid.

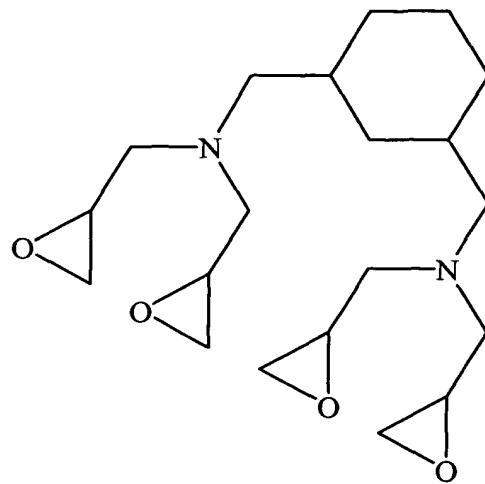
33. The coating produced of claim 31, wherein the compound of formula III of said polyepoxy resin is:



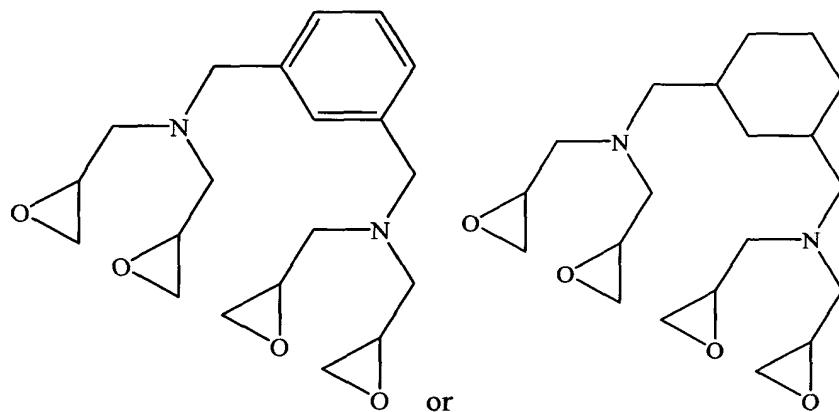
34. The coating produced of claim 33, wherein said formula III compound is:



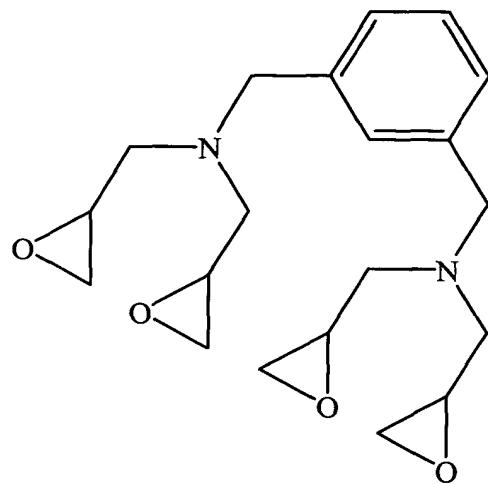
35. The coating produced of claim 33, wherein said formula III compound is:



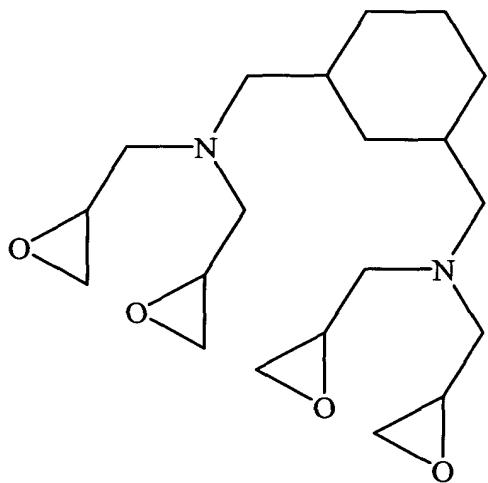
36. The coating produced of claim 34, wherein said carboxylic acid is acetic acid.
37. A kit for forming a coating produced from a mixture comprising the polyepoxy resin composition of claim 20.
38. The kit of claim 37, further comprising water.
39. The kit of claim 37, further comprising a curative.
40. The kit of claim 37, wherein the carboxylic acid is acetic acid.
41. The kit of claim 37, wherein the compound of formula III is:



42. The kit of claim 41, wherein said formula III compound is:

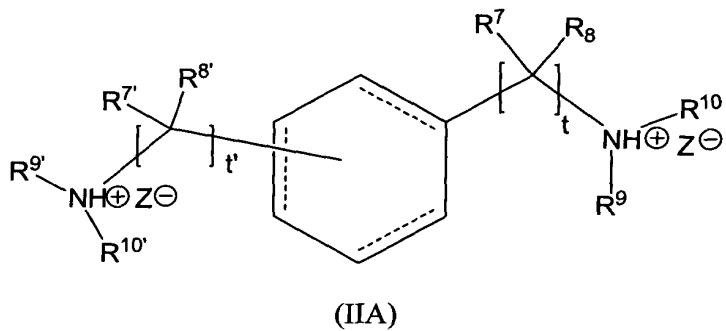


43. The kit of claim 41, wherein said formula III compound is:



44. A method for making a polyepoxy resin water soluble, comprising:  
contacting said resin with a carboxylic acid.
45. The method of claim 44, wherein said carboxylic acid is water soluble.
46. The method of claim 44, wherein said carboxylic acid is acetic acid.

47. A compound of formula IIA:



wherein:

- t is 1, 2, 3, 4, 5, or 6;
  - t' is 1, 2, 3, 4, 5, or 6;
  - R<sup>7</sup>, R<sup>7'</sup>, R<sup>8</sup>, and R<sup>8'</sup> are each independently H, alkyl, or aryl;
  - R<sup>9</sup>, R<sup>9'</sup>, R<sup>10</sup>, and R<sup>10'</sup> are each independently alkyl or -(alkylene)-epoxyethyl; and
  - Z is the anion of a weak acid.
48. The compound of claim 47, wherein R<sup>7</sup>, R<sup>7'</sup>, R<sup>8</sup>, and R<sup>8'</sup> are each H, and t and t' are each 1.
49. The compound of claim 47 wherein the six-membered ring is meta-substituted.
50. The compound of claim 47 wherein the six-membered ring is phenyl.
51. The compound of claim 47 wherein the weak acid is acetic acid.